PROJECT NAME:	Badger #2 Shaft; Abandoned mine land	<b>DATE:</b> 6/11/2014
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Nez Perce-Clearwater National Forest: Red

**LEGAL LOCATION:** 11T 615257E, 5057627N **FOREST:** River Ranger District

PROJECT TIMING: Unknown; not scheduled at this time

## **Project Description:**

The purpose of this proposal is to evaluate the abandoned mine site to determine what type of closure is appropriate (i.e., whether bats are a potential issue), and to initiate the necessary review an analysis for the closure. We visited the Badger Shaft #2 on 6/11/14 with minerals administrator Martin Jones to evaluate potential impacts associated with the prospective mine closure. There is a short (less than 500 feet) access road that leads from FS Road 311 to the Badger Shaft #2. The shaft is partially collapsed and appeared to be approximately 20 feet deep. The shaft and shallow trench that extends from it are roughly 60 feet in length. The shaft is a safety risk because an ATV could be driven into the area and the opening of the shaft is hard to detect from the top of the adjacent slope. There is a mound of fill on-site and it was assumed that this material had been removed from the trench and shaft. The fill pile is moderately vegetated and could be used to backfill the shaft and trench although additional material may be needed. A few sapling to pole sized trees may need to be removed to access mound of fill. The area surrounding the trench and shaft was lightly burned in a mosaic pattern during the 2010 McGuire Fire and the duffer/litter layer is intact and bear grass was thriving at the time of the visit.

**Biological Assessment and Biological Evaluation:** The following tables display those endangered, threatened, proposed, candidate, sensitive, and management indicator species that are known to (or may) occur on the Clearwater National Forest. For the project named above, this checklist serves as documentation for the Biological Assessment and Biological Evaluation for these species.

**WILDLIFE** The following narrative is a result of an on-site visit on 6/10/2014 and use of USFS information. Potential effects on wildlife habitat and individual animals were assessed within a ½ mile buffer surrounding the project area.

### A. Threatened, Endangered, and Proposed Species (list downloaded from USFWS on 07/29/2014)

Species	Suitable habitat in project area?	Effect on habitat?	Species present in area during season of project?	Determination <sup>1</sup>	Comments
Canada lynx (Felis lynx)	Yes	No	Yes	NLAA	Identified Canada lynx foraging habitat throughout the ¼ mile buffer (320 acres) of the Badger Shaft #2 site. Foraging habitat includes spruce/fir complexes above 4,000 feet in elevation with dense, horizontal understory. The U.S. Fish and Wildlife Service added Canada lynx to the list of threatened species on March 24, 2000 (65 FR 16052). The Northern Rockies Lynx Management Direction (NRLMD) now guides lynx management on the Nez Perce and Clearwater National Forests. The Nez Perce National Forest has no known Canada lynx population at this time.  This project site operation includes filling in an old mine shaft. Filling in the shaft may affect a minimal number of individual trees and shrubs.

					The site is immediately adjacent to motorized route 311. The recent Mcguire Fire impacted the project site as well. Noise production from equipment used in filling the shaft and human activity associated with the operation may impact lynx moving through the area in the short-term. However, this operation will not adversely impact or affect lynx occupying this portion of the Nez Perce National Forest.
North American wolverine <sup>2</sup> (Gulo gulo luscus)	Yes	No	Yes	NLAA This project will not jeopardize the continued existence of wolverine on the Nez Perce National Forest.	There are 320 acres of primary wolverine habitat within a ¼ buffer of the project site. The U.S. Fish and Wildlife Service produced a proposed rule for the North American Wolverine on Monday, February 4, 2013 in the Federal Register (Vol. 78, No. 23) in which it was determined that habitat modifications resulting from land management activities such as timber harvest would not significantly affect the conservation of wolverine. Filling the Badger# 2 shaft will create noise and additional human presence during the operation over the short-term (a period of a few days at most). Few if any trees and shrubs will be impacted by the project. The recent 43,040 acre Mcguire Fire impacted the project site and motorized route 311 is adjacent to the project site. To minimize any potential impact to wolverine, timing of the proposed activity should occur after May 15, which marks the end of the wolverine reproductive denning period.

# **B.** Sensitive Species

Species	Suitable habitat in project area?	Effect on habitat?	Species present in area during season of project?	j	Determination <sup>1</sup> NI MIIH LI BI		1	Comments	
				NI			BI		
Birds									
American peregrine falcon (Falco peregrinus anatum) <sup>2</sup> (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.	
Bald eagle (Haliaeetus leucocephalus) <sup>2</sup>	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.	

<sup>&</sup>lt;sup>1</sup> NE = "No effect"; NLAA = "Not likely to adversely affect"; LAA = "Likely to adversely affect"; BE=Beneficial effects

<sup>2</sup> This species is not listed for consultation for Section 7 of the ESA for the Nez Perce-Clearwater National Forests. This species is also a Forest Sensitive Species.

Species	Suitable habitat in project area?	Effect on habitat?	Species present in area during season of project?		Determin	ation	1	Comments
				NI	MIIH	LI	BI	
Black-backed woodpecker (Picoides arcticus)	Yes	None	Yes	X				Black-backed woodpeckers are opportunistic foragers upon outbreaks of wood-boring beetles or recently burned forests. Younger age-class and small size class stands of timber are not considered suitable habitat. The entire ½ mile buffer, 320 acres, of the project area is suitable habitat. Also, the recent 43,040 acre Mcguire Fire burned vast acreages adjacent to the project area, including within the ¼ mile project area buffer.  Woodpeckers are highly tolerant of human activities and any noise or human generated disturbances around the project site is unlikely to displace nesting/breeding woodpeckers within the buffer area. No large trees will be removed. Filling in the Badger #2shaft will not cause impacts to the black-backed woodpecker population.
Black swift ( <i>Cypseloides</i> niger) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Common loon (Mergellus albellus) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Flammulated owl ( <i>Otus</i> flammeolus)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Harlequin duck (Histrionicus histrionicus)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Mountain quail ( <i>Oreortyx</i> pictus) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Pygmy nuthatch (Sitta pygmaea)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
White-headed woodpecker ( <i>Picoides albolarvatus</i> ) (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Mammals								
Bighorn sheep (Ovis Canadensis) <sup>2</sup> (Nez Perce only)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Fisher (Martes pennanti) <sup>3</sup>	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.
Fringed myotis ( <i>Myotis</i> thysanodes)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.

Species	Suitable habitat in project area?	Effect on habitat?	Species present in area during season of project?		Determination <sup>1</sup>		Determination <sup>1</sup>		1	Comments
				NI	MIIH	LI	BI			
Gray wolf (Canis lupis) <sup>2</sup>	Yes	None	Yes	X				Sign of big game were observed within the ½ mile buffer of the project site, therefore, as a major predator of all these ungulates, wolf presence is possible in the area. Also, motorized route FS 311 is adjacent to the site and wolves use forest roads and trails routinely as movement corridors. Increased noise and human presence may cause wolves moving through the area to shift movements and find alternative routes for passage but no impacts to the wolf population will occur.		
Long-eared myotis ( <i>Myotis</i> evotis)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.		
Long-legged myotis (Myotis volans)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.		
North American wolverine	Yes	None	Yes		X			See Threatened and Endangered species above.		
Townsend's big-eared bat (Corynorhinus townsendii)	Yes	Yes	Yes	X				Townsend's big-eared bats are known to use caves and mine shafts for daytime roosting and hibernacula. An on-site inspection of the mostly collapsed shaft suggests that it does not offer roosting habitat in its present state. Several abandoned cabins and structures remain throughout the area that provide roosting habitat. Filling the shaft will not impact Townsend's big-eared bats.		
<b>Amphibians &amp; Reptiles</b>										
Coeur d'Alene salamander (Plethodon idahoensis)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.		
Ring-necked snake (Diadophis punctatus)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.		
Western (boreal) toad (Anaxyrus boreas)	No	None	No	X				No suitable habitat exists within the ¼ mile buffer of the project site.		

NI = "No impact"; MIIH = "May adversely impact individuals or habitat, but not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability range wide"; LI = "Likely to result in a loss of viability on the planning area, in a trend to federal listing, or in a loss of species viability range wide"; BI="Beneficial impact"

These species are also Management indicator species

Management indicator species for Nez Perce

# C. Management Indicator Species

Species	Suitable habitat	Effect on habitat?	Dialogical Detaurination
Species Birds	in project area?	nabuai:	Biological Determination
Belted kingfisher		T	
(Megaceryle alcyon)			
(Clearwater only)			
Northern goshawk			Northern Goshawk is not present within the buffered project area.
(Accipiter gentilis )	No	None	Northern Goshawk is not present within the buffered project area.
Pileated woodpecker			Recent Mcguire Fire created more open canopy, killed many of the mature trees and
(Dryocopus pileatus)	No	None	rendered this area poor habitat for pileated woodpeckers for the next several decades.
Mammals			Tendered this area poor habitat for pheated woodpeckers for the next several decades.
Manimais		T	There exist mosaics of mature forest with 40-60% canopy closure and moderate
American marten (Martes americana)	Yes	No	presence of down and dead woody debris. The recent Mcguire Fire killed many of the mature trees in the area but also will add to the down and dead woody debris as these fire-killed trees begin to fall onto the forest floor. No habitat alteration will occur under this project. Marten may be displaced by the human activity and resultant noise generated by this project. However, no anticipated risks of direct mortality or long-term impacts to the population are expected.
Grizzly bear ( <i>Ursus arctos</i> )	No	None	Grizzly bear are not known to be present within the ¼ mile buffer of the project area.
Rocky Mountain elk (Cervus elaphus)	Yes	None	The recent Mcguire Fire has improved elk habitat within the project buffer area by opening up the forest canopy and encouraging important forage plants to grow in greater abundance. Any tree or shrub removal at the proposed site will be minimal and not contribute in any significant way to the detriment or improvement of elk habitat within the ¼ mile buffer. Increased noise and human presence at the site during the proposed filling in of the mine shaft will discourage elk use of the immediate project area for the short-term. The presence of motorized route 311 already compromised habitat effectiveness for elk within the ¼ mile buffer of the project area. Additional human activity and noise production will not create impacts that adversely affect this population.
Shiras moose (Alces alces shirasi)	Yes	None	The recent Mcguire Fire has impacted moose habitat within the project buffer area by opening up the forest canopy and encouraging important forage plants to grow in greater abundance. However, some of the key browse species for moose are lodgepole pine, spruce, and fir trees. Many of these species were killed by the fire. Overall, there may be an actual decrease in the quality of moose habitat within the area over the next two decades. Any tree or shrub removal at the proposed site will be minimal and not contribute in any significant way to the detriment or improvement of moose habitat within the ¼ mile buffer. Increased noise and human presence at the site during the proposed filling in of the mine shaft will discourage moose use of the immediate project area for the short-term. The presence of motorized route 311 already compromised habitat effectiveness for moose within the ¼ mile buffer of the project area. Additional human activity and noise production will not create impacts that adversely affect this population.
White-tailed deer (Odocoileus virginianus) (Clearwater only)			

### Suggested mitigation to be included as part of the project design:

This action is needed to eliminate a safety risk and is a simple abandoned mine land closure. To minimize any potential impact to wolverine, timing of the proposed activity should occur after May 15, which marks the end of the wolverine reproductive denning period. Since reclamation will only involve backfilling the Badger#2 shaft using existing access and on-site fill, and minimal vegetation removal, no additional mitigations are recommended.

Prepared by:			
SIGNATURE:	/ Craig Jourdonnais	<b>DATE:</b> 6/11/2014	
TITLE:	Senior Wildlife Biologist		
Reviewed by:			
SIGNATURE:	/	DATE:	
TITLE:	Forest Wildlife Biologist		

**Threatened, Endangered, and Sensitive Species (TES) note:** The Biological Assessment/Evaluation process (FSM 2672.43) is intended to identify and document activities necessary to ensure that proposed management actions will not jeopardize the continued existence or cause adverse modification of habitat for TES species. TES species are those species that are listed or proposed to be listed as Threatened or Endangered by the U.S. Fish and Wildlife Service and species listed as Sensitive by the U.S. Forest Service, Region 1. This process also ensures compliance with the Nez Perce and Clearwater Forest Plans.

Wildlife biologists have reviewed this project, used available information on species distributions and habitat (using topographic maps, aerial photos, field reconnaissance, previous surveys, vegetation data, and/or habitat requirement data for each species), and then assessed the potential for effects for all federally listed, Region 1 sensitive, and Forest Plan management indicator species. If the project was determined to have no effect or no impact, this determination was based on one or more of the following criteria:

- 1) Habitat for the species is not present in the project area.
- 2) Habitat for the species is present (the species occurs or may occur in the project area), but the project would not alter habitat for the species.

Cumulative impacts: Cumulative impacts to wildlife populations and habitats are addressed through consideration of past, proposed and reasonably foreseeable actions, such as road and trail construction and use, timber harvest, natural and prescribed fire, grazing, weed introductions, mining, and recreational uses. The results of past projects contribute to the current existing condition, which can be used to discuss effects of proposed activities on wildlife species. Based on consideration of these past, present, and reasonably foreseeable actions, the project would not have any incremental effect that would cause a cumulatively significant effect.

**Consistency with Laws:** The objective of managing sensitive species is to ensure population viability throughout their range on National Forest lands and to ensure they do not become federally listed as threatened or endangered. All actions included in this project are consistent with this direction to the extent that proposed project activities or management actions would not adversely affect viability of sensitive wildlife populations.

NOTE: THE USFWS LIST OF SPECIES SHOWN BELOW MUST BE INCLUDED WITH EACH BA.

#### U.S. Fish and Wildlife Service



Project Name:

### **Trust Resources List**

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

Idaho Fish and Wildlife Office 1387 SOUTH VINNELL WAY, SUITE 368 BOISE, ID 83709 (208) 378-5243 http://www.fwz.gov/idaho/

All Counties
Project Counties:
Clearwater, ID   Idaho, ID   Lewis, ID   Nez Perce, ID
Project Type:
Mining

### Endangered Species Act Species List (<u>USFWS Endangered Species Program</u>).

There are a total of 8 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the Has Critical Habitat column may or may not lie within your project area. See the Critical habitats within your project area section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Conifers and Cycads	Status		Has Critical Habitat	Contact	
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### U.S. Fish and Wildlife Service



# **Trust Resources List**

Whitebark pine (Pinus albicaulis)	Candidate	species info		Idaho Fish And Wildlife Office
Fishes				
Bull Trout (Salvelinus confluentus) Population: U.S.A., conterminous, lower 48 states	Threatened	species info	Final designated critical habitat	Idaho Fish And Wildlife Office
Flowering Plants				
Macfarlane's four-o'clock (Mirabilis macfarlanei)	Threatened	species info		Idaho Fish And Wildlife Office
Spalding's Catchfly (Silene spaldingii)	Threatened	species info		Idaho Fish And Wildlife Office
Water howellia (Howellia aquatilis)	Threatened	species info		Idaho Fish And Wildlife Office
Mammals			-	_
Canada Lynx (Lynx canadensis) Population: (Contiguous U.S. DPS)	Threatened	species info	Final designated critical habitat Proposed critical habitat	Idaho Fish And Wildlife Office
North American wolverine (Gulo gulo luscus) Population:	Proposed Threatened	species info		Idaho Fish And Wildlife Office
Northern Idaho Ground squirrel (Spermophilus brunneus brunneus) Population: Entire	Threatened	species info		Idaho Fish And Wildlife Office

### Critical habitats within your project area: (View all critical habitats within your project area on one map)

The following critical habitats lie fully or partially within your project area.

Fishes	Critical Habitat Type
Bull Trout (Salvelinus confluentus)  Population: U.S.A., conterminous, lower 48 states	Final designated critical habitat

#### U.S. Fish and Wildlife Service



### Trust Resources List

steelhead (Oncorhynchus (=salmo) mykiss)	Final designated critical habitat
Population: Snake R. Basin	

### FWS National Wildlife Refuges (USFWS National Wildlife Refuges Program).

There are 2 refuges in your refuge list

Dworshak National Fish Hatchery (208) 476-4591 276 DWORSHAK COMPLEX DRIVE OROFINO, ID83544	refuge profile
Kooskia National Fish Hatchery (208) 926-4272 318 TOLL ROAD KOOSKIA, ID83539	refuge profile

### FWS Migratory Birds (<u>USFWS Migratory Bird Program</u>).

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see <a href="http://www.fws.gov/migratorybirds/RegulationsandPolicies.html">http://www.fws.gov/migratorybirds/RegulationsandPolicies.html</a>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html.

Migratory birds of concern that may be affected by your project:



There are 10 birds on your Migratory birds of concern list. The Division of Migratory Bird Management is in the process of populating migratory bird data with an estimated completion date of August 1, 2014; therefore, the list below may not include all the migratory birds of concern in your project area at this time. While this information is being populated, please contact the Field Office for information about migratory birds in your project area.

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
American bittern (Botaurus lentiginosus)	Yes	species info	Breeding
Black Rosy-Finch (Leucosticte atrata)	Yes	species info	Year-round
Black Swift (Cypseloides niger)	Yes	species info	Breeding
Brewer's Sparrow (Spizella breweri)	Yes	species info	Breeding
Calliope Hummingbird (Stellula calliope)	Yes	species info	Breeding
Cassin's Finch (Carpodacus cassinii)	Yes	species info	Year-round
Olive-Sided flycatcher (Contopus cooperi)	Yes	species info	Breeding
Rufous hummingbird (selasphorus rufus)	Yes	species info	Breeding
Williamson's Sapsucker (Sphyrapicus thyroideus)	Yes	species info	Breeding
Willow Flycatcher (Empidonax traillii)	Yes	species info	Breeding

#### NWI Wetlands (<u>USFWS National Wetlands Inventory</u>).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to



the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate <u>U.S. Army Corps of Engineers</u> <u>District</u>.

#### Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberfield worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:

Wetland Types	NWI Classification Code	Total Acres



Freshwater Emergent Wetland	PEM/SS1C	1.4958
Freshwater Emergent Wetland	PEMCh	2.1974
Freshwater Emergent Wetland	<u>PEMAx</u>	0.8534
Freshwater Emergent Wetland	PEMPh	1.2929
Freshwater Emergent Wetland	PEMF	9.819
Freshwater Emergent Wetland	<u>PEMA</u>	21.1824
Freshwater Emergent Wetland	PEMC	477.1857
Freshwater Emergent Wetland	<u>PEMB</u>	48.1965
Freshwater Emergent Wetland	PEM1C	540.0394
Freshwater Forested/Shrub Wetland	PFOB	0.9031
Freshwater Forested/Shrub Wetland	<u>PFOA</u>	34.7874
Freshwater Forested/Shrub Wetland	PFO4A	4.9424
Freshwater Forested/Shrub Wetland	PFO4C	22.5257
Freshwater Forested/Shrub Wetland	PSS1/EM1C	6.2654
Freshwater Forested/Shrub Wetland	<u>PSSA</u>	64.8799
Freshwater Forested/Shrub Wetland	PSSB	5.9953
Freshwater Forested/Shrub Wetland	PSSC	19.5796
Freshwater Forested/Shrub Wetland	PSS/EM1C	9.7065
Freshwater Forested/Shrub Wetland	PFO4/EM1A	2.3917
Freshwater Forested/Shrub Wetland	PFO4/EM1C	149.1303
Freshwater Forested/Shrub Wetland	PFO4/SS1A	3.0972
Freshwater Forested/Shrub Wetland	PFO4/SS1C	14.0328
Freshwater Forested/Shrub Wetland	PSS1C	76.2136
Freshwater Pond	PUBFx	0.0349
Freshwater Pond	PUB3Hs	1.3703
Freshwater Pond	PABFh	0.4647
	-	



Freshwater Pond	PABG	1.8751
Freshwater Pond	PABF	0.0789
Freshwater Pond	<u>PUBHh</u>	19.7318
Freshwater Pond	PUBHb	0.1314
Freshwater Pond	PUB3Hh	0.6336
Freshwater Pond	<u>PUBHx</u>	0.9009
Freshwater Pond	PABHh	6.3685
Freshwater Pond	<u>PUBH</u>	1.1358
Freshwater Pond	PUBF	0.1139
Freshwater Pond	<u>PABHx</u>	1.8229
Freshwater Pond	PUB3H	2.3812
Freshwater Pond	<u>PUBFh</u>	3.1857
Lake	<u>L1UBH</u>	46.7666
Other	PUS3C	0.0901
Riverine	R3UB1H	9.6027
Riverine	R4SBC	28.6656
Riverine	R4SBA	28.936
Riverine	R3RSA	8.699
Riverine	R3RSC	3.8873
Riverine	R3UBH	10.9743
Riverine	R3US1C	13.9971
Riverine	R4SBAx	2.2122
Riverine	R3USC	4.895
Riverine	R3USA	20.9551
Riverine	R3US1CS	0.6345